

are expressed as cost per quality adjusted life year (QALY) gained. Perspective is that of the national health system (NHS). Benefits and costs were discounted with 3% per year. **RESULTS:** Over the 3 year analysis period, 2.12 life years per patient were achieved with TA TAVI, 2.31 with TF TAVI and 1.51 with conservative medical care, representing 1.24, 1.38 and 0.74 QALYs, respectively. Cumulative direct costs were predicted to amount to €37,311 and €35,689 with TA and TF TAVI, respectively and to €23,103 with conservative care. Cost/QALY gained was €28,003 for TA TAVI and €19,499 for TF TAVI, both ratios remaining well below the accepted willingness-to-pay threshold for Spain. The substantial cost of the TAVI procedure was largely offset over time mainly by savings related to prevented hospital readmissions for cardiac reasons. Sensitivity analyses indicated these findings to be robust. **CONCLUSIONS:** Compared to conservative management, TAVI is a life-saving and cost-effective treatment for high-risk or inoperable patients with symptomatic aortic valve stenosis in Spain.

PMD27

COST-EFFECTIVENESS ANALYSIS OF CARDIAC RESYNCHRONIZATION THERAPY IN PATIENTS WITH ASYMPTOMATIC TO MILD HEART FAILURE BASED ON THE EUROPEAN COHORT OF THE REVERSE STUDY FROM THE SPANISH HEALTH SYSTEM PERSPECTIVE

Quesada A¹, Almenar L², Díaz Molina B³, Crespo C⁴, Martí B⁵, Mealing S⁶, Linde C⁷, Daubert C⁸

¹Hospital General de Valencia, Valencia, Spain, ²Hospital Universitario La Fe, Valencia, Spain, ³Hospital Universitario Central de Asturias, Oviedo, Spain, ⁴Oblique Consulting, Barcelona, Spain, ⁵Medtronic Iberia, Madrid, Spain, ⁶Oxford Outcomes Ltd, Oxford, UK, ⁷Karolinska University Hospital, Solna, Sweden, ⁸Centre Hospitalier Universitaire, Rennes, France

OBJECTIVES: The aim of this study was to combine clinical results from the REVERSE study (Resynchronisation reverses Remodelling in Systolic Left Ventricular Dysfunction) and costs associated with the addition of cardiac resynchronization therapy (CRT) to optimal medical therapy (OMT) in patients with mild symptomatic (NYHA I-II) or asymptomatic left ventricular dysfunction and markers of cardiac dyssynchrony in Spain. **METHODS:** We developed a Markov model of CRT + OMT (CRT-ON group) vs. OMT alone (CRT-OFF group) based on a retrospective cost-effectiveness analysis. Raw data from the model was derived from literature and expert opinion, reflecting clinical and economic consequences of patient's management in Spain. Time horizon was 10 years, and costs were expressed in Euro 2010. Both costs and effects were discounted at 3% per annum. **RESULTS:** CRT-ON group showed higher total costs than CRT-OFF, however patients with CRT reduced 94% the length of hospitalization in the ICU (0.006 vs. 0.091 days) and 34% in general ward (0.705 vs. 1.076 days). Surviving patients with CRT-ON (88.2% vs. 77.5%) remained in slighter functional class longer and they achieved an improvement of 0.9 life years (LYGs) and 0.77 years quality-adjusted life years (QALYs). In terms of cost per LYGs, the results were €40,782 (5 years) and €18,431 (10 years), and in terms of costs per QALYs gained were €39,800 and €21,500 at 5 and 10 years respectively. Probabilistic sensitivity analysis showed that the probability of CRT-ON was cost-effective is 65.54% at 10 years. **CONCLUSIONS:** The use of CRT added to OMT represents an efficient use of resources in patients suffering from heart failure in NYHA functional class I and II, with cost-effectiveness ratios below the Spanish threshold at 10 years.

PMD28

COST-EFFECTIVENESS ANALYSIS OF THREE LEPROSY CASE DETECTION METHODS IN NORTHERN NIGERIA

Ezenduka CC

University of Nigeria, Enugu, Enugu, Nigeria

OBJECTIVES: Case detection is key to identifying leprosy disease early in its development for more effective prevention of progression to permanent disability. The study evaluated the costs and cost-effectiveness of three leprosy case detection methods in Nigeria's north-eastern states of Adamawa and Gombe; namely Rapid Village Survey (RVS), Household Contact Examination (HCE) and Traditional Healer's (THs) incentive approach. **METHODS:** The study was cross-sectional and explorative, undertaken in routine practice setting, targeting endemic and non-endemic communities selected randomly. Primary and secondary data were collected from routine practice records and the Nigerian Leprosy Elimination Programme 2009. All costs were measured from both providers' and patients' perspectives. Effectiveness was measured as new cases detected and outcome expressed as cost per case detected. Incremental approach, using routine passive case detection method as a reference was used to estimate the costs and effects by comparing each method against the routine practise; to measure additional cost per new case detected, as incremental cost-effectiveness ratio (ICER). Univariate sensitivity analysis was carried out to evaluate uncertainties around the ICER. All costs were converted to US Dollars at the 2010 exchange rate. **RESULTS:** HCE generated a total of \$2416 at the lowest rate of \$142 per additional case detected at all contact levels, as the most cost-effective method while the RVS was dominated by THs method which generated a total of \$4447 at \$193 per new case detected. Variation of diagnostic accuracy and subsistent wage for valuing unpaid time did not significantly change the results. **CONCLUSIONS:** From both perspectives and at all contact levels, the Household Contact Examination, complementing routine practice demonstrated the most cost-effective approach to identifying new leprosy cases for effective prevention and control of leprosy in Nigeria. It will be necessary to carry out implementation studies to establish the feasibility and acceptability of the method in other leprosy areas.

PMD29

A1CNow® AS AMBULATORY MONITORING OF GLYCATED HEMOGLOBIN IN DIABETIC TYPE 2 (DM2) PATIENTS: BRAZILIAN ECONOMIC MODELING

Silva AP¹, Santoni NB¹, Pepe C², Laranjeira F²

¹Bayer Brazil, São Paulo, São Paulo, Brazil, ²Medinsight, São Paulo, São Paulo, Brazil

OBJECTIVES: To determine the cost-effectiveness of measuring glycated hemoglobin with A1CNow® compared with standard exam (SE) for DM2 patients, from the Brazilian Private Healthcare System perspective. **METHODS:** The study was a cost-effectiveness analysis based on Markov modeling to estimate costs and consequences of treatments. Epidemiological and efficacy data derived from a critical appraisal of the scientific literature. Only direct medical costs were considered. If available, costs of clinical events (CE) were obtained from burden of disease studies. If not, Brazilian official guidelines were obtained to determine the resources used to treat the CE. Drugs, hospital daily admission rates, procedures and laboratory tests unit costs were obtained from Brazilian official databases. Costs and benefits were discounted at 5% yearly. Outcomes were expressed as CE avoided. Probability sensitivity analysis (PSA) was conducted to assess model robustness. Life time horizon was analyzed. **RESULTS:** Through the systematic review of the literature the studies were selected to form the body of clinical data for the analyses. The systematic review showed that although the absence of studies directly evaluating the impact of A1CNow on cardiovascular events, their favorable influence on cardiovascular disease intermediate markers suggests that A1CNow may have clinically relevant effect in patients at risk. The analysis showed higher clinical benefits and lower costs for A1CNow. Considering 100 patients, 99.8 and 146.1 CE happen in A1CNow and SE arms, respectively. The average time-horizon cost per patient was R\$25,444(€11,108) and R\$29,278(€12,782) for A1CNow and SE, respectively, showing the dominance of A1CNow compared to SE. PSA demonstrated that in 95.3% of the simulations A1CNow was dominant (more effective with lower cost) compared to SE. **CONCLUSIONS:** Our study demonstrated that A1CNow have clinically relevant effect in reducing CE being dominant for monitoring of glycated hemoglobin in DM2 patients. PSA confirmed this determinist result.

PMD30

COST-EFFECTIVENESS ANALYSIS OF PULMONARY VEIN ISOLATION (PVI) USING A NOVEL CRYO ENERGY-BASED BALLOON CATHETER: A HIGH-VALUE PROCEDURE FOR PAYERS?

Tsintzos S, Egginton S

Medtronic International Trading Sarl, Tolochenaz, Vaud, Switzerland

OBJECTIVES: Atrial Fibrillation (AF) is the most common arrhythmia among the elderly. It has dire consequences, stroke being the most catastrophic. Its burden is highly significant; changing demographics lead to more patients impacted. Managing AF encompasses arrhythmia control and stroke prevention – with new technologies being developed for both. For Paroxysmal AF (PAF) – which terminates spontaneously within 7 days – electrical Pulmonary Vein Isolation (PVI) has advanced as the cornerstone treatment in patients unresponsive to pharmaceuticals. PAF accounts for 75% of patients, and half are medicated with sub-optimal outcomes. We sought to evaluate the cost-effectiveness of PVI when using a new balloon-based catheter using cooling energy for lesion creation (Arctic Front, Medtronic). **METHODS:** A Markov Microsimulation Model compared treatment with Arctic Front vs. conventional drugs. STOP-AF Pivotal Trial Data were used to estimate PVI efficacy and complication rates. A literature review identified data for long-term PVI and drug therapy outcomes. The model incorporated Arctic Front specific complication rates (e.g. stroke, tamponade and phrenic nerve paralysis) and drug toxicities and impact on stroke risk was included. Utility weights were assigned for various health states, and a range of time horizons was used, with a UK perspective adopted for costs and benefits. One-way and probabilistic sensitivity analyses were undertaken. **RESULTS:** Depending on the time horizon, the ICER ranged from £3,200/QALY to £15,700/QALY gained. Results were sensitive to assumptions regarding long-term outcomes and the quality of life benefit of remaining free of PAF. **CONCLUSIONS:** PVI can be highly cost-effective in treating PAF – a highly prevalent and burdensome disease. Results are consistent with similar technology economic evaluations, and reinforce the evidence base for PVI as a cost-effective therapy for PAF.

PMD31

ECONOMIC EVALUATION OF PRIMOVIST VERSUS EXTRACELLULAR CONTRAST IN IMAGING OF LIVER METASTASES OF COLORECTAL ORIGIN

Castell J¹, Bernal C¹, De Marcos JA², Cugat E², Ramón E³, Tellado JM³

¹Hospital Universitario Virgen del Rocío, Seville, Spain, ²Hospital Universitari Mútua de Terrassa, Barcelona, Spain, ³Hospital G. U. Gregorio Marañón, Madrid, Spain

OBJECTIVES: The main purpose of this study was to conduct an economic evaluation of Primovist enhanced MRI (PV-MRI) compared to extracellular contrast-media-enhanced MRI (ECC-MRI) in patients suffering from liver metastases of colorectal origin in Spain. **METHODS:** An analytic model previously implemented in three European countries (Germany, Italy and Sweden) was adapted in Spain to estimate all aggregated costs of both diagnosis options compared. Probabilities of needing further imaging and of needing surgical plans modification or confirmation were adjusted by Spanish clinical experts (surgeons and radiologists). Contrasts cost was estimated from PTR (weighting the different EECs prices for sales in Spain for this option), and tests (MRI and CT) and different surgery procedures (high or low risk, modification or confirmation of surgical plans, etc.) costs were extracted from official fees of different Spanish Autonomous Communities (CCAA). **RESULTS:** PV-MRI was associated with a reduced need for extra imaging tests (6% vs. 9%). Taking into account the costs of diagnosis tests and surgery procedures (including modification of surgical plans during intervention), PV-MRI option was a cost-neutral strategy, with total costs similar to ECC-MRI (576 € vs. € 578, PV-MRI vs ECC-MRI respectively). **CONCLUSIONS:** Additional costs associated with colorectal liver metastases diagnosis with PV-MRI regarding to ECC-MRI are offset by lower